DOCKET NO.: MSFT-0584/167511.2   PATENT   #4

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Steven E. Swenson et al.

Serial No.: 09/904,465   Group Art Unit: 2152

Filing Date: July 13, 2001   Examiner: Not Yet Assigned

For: SYSTEM AND METHODS FOR AUTOMATIC DSP PROCESSING

DATE OF DEPOSIT: _November 16 2001_

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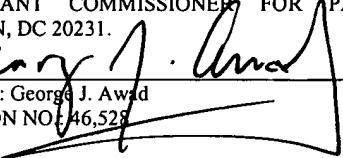
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Dear Sir:

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Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 C.F.R. §1.56(b).

☒   In accordance with §1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of the above identified application as set forth in §1.491, before the mailing date of a first Office Action on the merits of the above-identified application, or before the mailing date of a first office action after the filing of request for continued examination under §1.114, no additional fee is required.

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☒   Copies of each of the references listed on the attached Form PTO-1449 are enclosed herewith.

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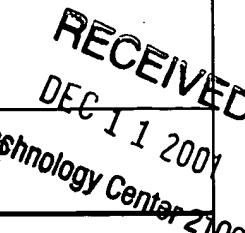
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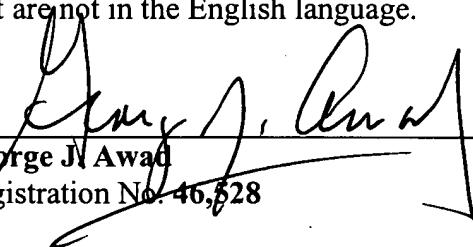
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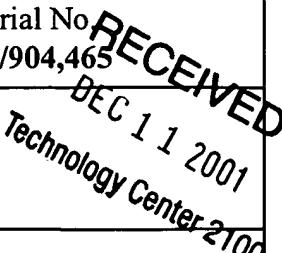
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List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant **Steven E. Swenson et al.**	
U.S. Department of Commerce Patent and Trademark Office		Filing Date **July 13, 2001**	Group 2152

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AA	Appelbaum, M. et al., "Agile – A CAD/ CAM/ CAE Interface Language," *Society of Manufacturing Engineers: Technical Paper*, **1984**, *MS84-182*, 1-19
	AB	Bendix, L. et al., "CoEd – A Tool for Versioning of Hierarchical Documents," B. Magnusson (Ed.), *System Configuration Management, Proc. ECOOP'98 SCM-8 Symposium*, Brussels, Belgium, **July 20-21, 1998**
	AC	Biglari-Abhari, M. et al., "Improving Binary Compatibility in VLIW Machines through Compiler Assisted Dynamic Rescheduling," *IEEE*, **2000**, 386-393
	AD	Boneh, D. et al., "Collusion-secure fingerprinting for digital data," *IEEE Trans. Information Theory*, **1998**, *44(5)*, 1897-1905
	AE	Bratsberg, S.E., "Unified Class Evolution by Object-Oriented Views," Pernul, G. et al. (Eds.), *Entity-Relationship Approach – ER '92. Proc. 11th International Conference on the Entity-Relationship Approach*, Karlsruhe, Germany, **October 7-9, 1992**, 423-439
	AF	Bresin, R. et al., "Synthesis and decoding of emotionally expressive music performance," *IEEE SMC'99 Conference Proceedings. 1999 IEEE Int'l Conf. On Systems, Man, and Cybernetics*, **1999**, *Vol. 4*, 317-322
	AG	Camurri, A. et al., "Multi-Paradigm Software Environment for the Real-Time Processing of Sound, Music and Multimedia," *Knowledge-Based Systems*, **1994**, *7(2)*, 114-126
	AH	Camurri, A. et al., "Music and Multimedia Knowledge Representation and Reasoning - The Harp System," *Computer Music J.*, **1995**, *19(2sum)*, 34-58
	AI	Camurri, A., "Music content processing and multimedia: Case studies and emerging applications of intelligent interactive systems," *J. New Music Res.*, **1999**, *28(4)*, 351-363
	AJ	Clamen, S.M., "Schema Evolution and Integration", *Distributed and Parallel Databases 2*, **1994**, *2*, 101-126

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U.S. Department of Commerce Patent and Trademark Office		Filing Date **July 13, 2001**	Group **2152**

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AK	Cohen, W.W. et al., "Web-collaborative filtering: recommending music by crawling the Web," *Computer Networks*, **2000**, *33*, 685-698
	AL	Conradi, R. "Version Models for Software Configuration Management," *ACM Computing Surveys*, **June 1998**, *30(2)*, 232-282
	AM	Conradi, R. et al., "Change-Oriented Versioning: Rationale and Evaluation," *Third Int'l. Workshop – Software Engineering & Its Applications*, **December 3-7, 1990**, Toulouse, France, pp. 97-108
	AN	Craner, P.M., "New Tool for an Ancient Art: The Computer and Music," *Computers and Humanities*, **1991**, *25*, 303-313
	AO	De Castro, C. et al., "Schema Versioning for Multitemporal Relational Databases," *Information Systems*, **1997**, *22(5)*, 249-290
	AP	DeRoure, D.C. et al., "Content-based navigation of music using melodic pitch contours," *Multimedia Systems*, **2000**, *8*, 190-200
	AQ	Drossopoulou, S. et al., "A Fragment Calculus –towards a model of Separate Compilation, Linking and Binary Compatibility," *14th Symposium on Logic in Computer Science – IEEE Computer Society*, **July 2-5, 1999**, Los Alamitos, California, pp 147-156
	AR	Eisenberg, M. "Programmable applications: exploring the potential for language/interface symbiosys," *Behaviour & Information Technology*, **1995**, *14(1)*, 56-66
	AS	Franconi, E. et al., "A Semantic Approach for Schema Evolution and Versioning in Object-Oriented Databases," J. Lloyd et al., (Eds.), *Computational Logic – CL 2000: Proc. First Int'l. Conference*, **July 24-28, 2000**, London, UK, pp. 1048-1062
	AT	Gal, A. et al., "A Multiagent Update Process in a Databased with Temporal Data Dependencies and Schema Versioning," *IEEE Transactions on Knowledge and Data Engineering*, **January/February 1998**, *10(1)*, 21-37

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AU	Gentner, T. et al., "Perceptual classification based on the component structure of song in European starlings," *J. Acoust. Soc. Am.*, **June 2000**, *107(6)*, 3369-3381
	AV	Goddard, N.J., "Using the "C" programming language for interface control," *Laboratory Microcomputer*, **Autumn 1982**, 15-22
	AW	Goldman, C.V. et al., "NetNeg: A connectionist-agent integrated system for representing musical knowledge," *Annals of Mathematics and Artificial Intelligence*, **1999**, *25*, 69-90
	AX	Goldstein, T.C. et al., "The Object Binary Interface- C++ Objects for Evolvable Shared Class Libraries," *USENIX Association - Proc. of the 1994 USENIX C++ Conference*, **April 11-14, 1994**, Cambridge, MA, 1-19
	AY	Hori, T. et al., "Automatic music score recognition/play system based on decision based neural network," *1999 IEEE Third Workshop on Multimedia Signal Processing*, Ostermann, J. et al. (eds.), **1999**, 183-184
	AZ	Kieckhefer, E. et al., "A computer program for sequencing and presenting complex sounds for auditory neuroimaging studies," *J. Neurosc. Methods,* August, **2000**, *101(1)*, 43-48
	BA	Kirk, R. et al., "Midas-Milan - an open distributed processing system for audio signal processing," *J. Audio Enginerr. Soc.*, **1996**, *44(3)*, 119-129
	BB	Krulwich, B., "Lifestyle finder - Intelligent user profiling using large-scale demographic data," *AI Magazine*, **1997**, *18(2sum)*, 37-45
	BC	Lethaby, N., "Multitasking with C++," *Proc. of the 5th Annual Embedded Systems Conference*, **5-8 October 1993**, Santa Clara, CA , *2*, 103-120
	BD	Lewine, D., "Certifying Binary Applications," *Proc. of the Spring 1992 EurOpen & USENIX Workshop*, **April 6-9, 1992**, Jersey, Channel Islands, 25-32
	BE	Li, D. et al., "Classification of general audio data for content-based retrieval," *Pattern Recogn. Letts.*, **2001**, *22(5)*, 533-544

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	BF	Liang, R.H. et al., "Impromptu Conductor - A Virtual Reality System for Music Generation Based on Supervised Learning," *Displays,* **1994,** *15(3),* 141-147
	BG	Logrippo, L., "Cluster analysis for the computer-assisted statistical analysis of melodies," *Computers Humanities,* **1986,** *20(1),* 19-33
	BH	Moreno, P.J. et al., "Using the Fisher Kernal Method for Web Audio Classification," *2000 IEEE Int'l Conf. On Acoustics, Speech, and Signal Processing, Proceedings,* **2000,** *Vol. 4,* 2417-2420
	BI	Morrison, I. et al., "The Design and Prototype Implementation of a "Structure Attribute" Model for Tool Interface Within an IPSE," *Microprocessing and Microprogramming,* **1986,** *18,* 223-240
	BJ	Oiwa, Y. et al., "Extending Java Virtual Machine with Integer-Reference Conversion," *Concurrency: Practice and Experience,* **May 2000,** *12(6),* 407-422
	BK	Oussalah, C. et al., "Complex Object Versioning," *Advanced Information Systems Engineering - Proc. 9th Int'l. Conference, CaiSE'97,* **June 16-20, 1997,** Catalonia Spain, 259-272
	BL	Pesavento, M. et al., "Unitary Root-MUSIC with a Real-Valued Eigendecomposition: A Theoretical and Experimental Performance Study," *IEEE Transactions on Signal Processing,* **May 2000,** *48(5),* 1306-1314
	BM	Pirn, R., "Some Objective and Subjective Aspects of 3 Acoustically Variable Halls," *Appl. Acoustics,* **1992,** *35(3),* 221-231
	BN	Proper, H.A., "Data schema design as a schema evolution process", *Data & Knowledge Engineering,* **1997,** *22,* 159-189
	BO	Roddick, J.F., "A survey of schema versioning issues for database systems," *Information and Software Technology,* **1995,** *37(7),* 383-393
	BP	Rose, E. et al., "Schema versioning in a temporal object-oriented data model," *Int'l. Journal on Artificial Intelligence Tools,* **1998,** *7(3),* 293-318

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	BQ	Serra, A., "New solutions for the transmission of music. Possible methods in view of the reduction of the pass band," *Revista Espanola de Electronica,* July, **1976,** *23(260),* 34-35 **(English language abstract attached)**
	BR	Smith, M.W.A., "A relational database for the study and quantification of tempo directions in music," *Comput. Humanities,* **1994,** *28(2),* 107-116
	BS	Speiser, J.M. et al., "Signal processing computations using the generalized singular value decomposition," *Proceedings of SPIE - The Int'l Socity for Optical Engineering. Real Time Signal Processing VII,* Bellingham, WA, **1984,** 47-55
	BT	Surveyer, J., "C+ = (C-Sharp = = Microsoft Java++)? True:False;", *Java Report,* **October 2000,** 5 pages
	BU	Tsotras, V. et al., "Optimal Versioning of Objects," *Eighth Int'l. Conference on Data Engineering – IEEE Computer Society,* **February 2-3, 1992,** Tempe, Arizona, 358-365
	BV	Urtado, C. et al., "Complex entity versioning at two granularity levels," *Information Systems,* **1998,** *23(3/4),* 197-216
	BW	Wieczerzycki, W., "Advanced versioning mechanisms supporting CSCW environments," *Journal of Systems Architecture,* **1997,** *43,* 215-227
	BX	Yoder, M.A. et al., "Using Multimedia and the Web to teach the theory of digital multimedia signals," *Proceedings. Frontiers in Education, 1995 25th Annual Conference. Engineering Education for the 21st Century, IEEE,* Budny, D. et al. (eds.), November 1-4, **1995,** *Vol. 2,* Atlanta, GA
	BY	Zhang, T. et al., "Audio content analysis for online audiovisual data segmentation and classification," *IEEE Trans. on Speech and Audio Processing,* May, **2001,** *9(4),* 441-457
	BZ	Zhang, T. et al., "Heuristic approach for generic audio data segmentation and annotation," *Proceedings ACM Multimedia 99,* **1999,** 67-76

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